ChemE MIT Chemical Engineering

COURSE 10

2025-2026

UNDERGRADUATE STUDENT HANDBOOK

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Chemical Engineering Academic Office

The Academic Office is located in 66-366, is the primary source for information about admissions, registration, financial support and awards, grades, academic records, and graduation. In addition, the Assistant Director of Academic Programs for the Department of Chemical Engineering, is also available to assist with advising and counseling on personal and academic matters, or can refer you to other resource people at MIT.

The Academic Office is a welcoming and inclusive environment. If you have any questions, please feel free to stop by (and grab a snack while you're here), or you can e-mail, call, or find us on Slack!

Staff List

Melanie Charette
Assistant Director of Academic Programs
Academic Office, 66-366a
melaniec@mit.edu
617.253.4577

Adrienne Bruno
Undergraduate Academic Program Specialist
Academic Office, 66-366
brunoa@mit.edu
617.253.4579

Matthew Sweeney
Graduate Academic Program Specialist
Academic Office, 66-366
vsweeney@mit.edu
617.452.2162

The Undergrad Computer Lab ("The Bunker") 66-070

Please remember to be mindful about keeping the Bunker clutter free and to pick up after yourselves so that the cleanliness of the space can be maintained – no food or drink is permitted in the space. Adrienne Bruno will be the point of contact for any needs or computer issues that occur in the Bunker. The goal is to make sure that everything is working efficiently and that your concerns are promptly addressed throughout the year. Your safety is extremely important so we ask that you not let in any unfamiliar people into the space and report unusual activity to Melanie Charette melaniec@mit.edu or Adrienne Bruno brunoa@mit.edu. For key card access to the Bunker, please contact Timothy Elizabeth Xavier, xaviert@mit.edu. In an emergency, contact campus police at (617) 253-1212, or call 911.

The Undergrad Lounge 66-258

The Undergrad Lounge space is meant to be an informal gathering space for Course 10 students to use for study groups or similar. Food and drink are allowed in the space, but please clean up after yourselves so the space remains clean and tidy. Key card access for this space will be granted by Timothy Elizabeth Xavier,

xaviert@mit.edu. or Adrienne Bruno, brunoa@mit.edu. Access to this space is only available for Course 10 undergraduates; please do not let unfamiliar people into the space. Adrienne Bruno in the Academic Office is the main contact for issues with this space.

Room reservations
To make a conference room reservation in Buildings 66 or E17, undergrads should email cheme-conf-room@mit.edu. Classroom reservations must be requested through the department's registrar liaison, Timothy Elizabeth Xavier, xaviert@mit.edu.

Lunchroom/Breakroom (66-201)
66-201 is a general working/eating space for everyone in the Department. You will receive emails when the room is reserved for events and thus unavailable. The door code to 66-201 is 8-6-7-5-3. Please do not prop the doors open, and be sure to always clean up after yourselves and return furniture to its original location if you move it.

Department Computer Support
The Chemical Engineering IT Manager is Jim Hardsog. Jim can be contacted for any computing related issues including computer viruses, email issues, network access, printing, software, and obtaining a new IP address for a computer or printer. Jim's office is located in room 56-483 and can be reached by telephone at extension 3-0088 or by email at cheme-computer@mit.edu.

ChemE CommLab, Career & Professional Development

The Chemical Engineering Communication & Career Lab offers one-on-one communication coaching with trained graduate students and postdocs in Chemical Engineering. We offer field-specific support and training in written, oral, and visual communication. Our team of Communication Fellows can help with resumes, cover letters, graduate school applications, competitive fellowships and more. Book an appointment at any stage of the communication process – the earlier the better. We can help you brainstorm your application strategy, sketch a design for your conference poster, or prep for an internship interview. Attend our workshops and events and learn how to navigate the Fall Career Fair and apply for the NSF Graduate Fellowship Program. After hours, check out our online CommKit for quick guides and examples of successful communication by chemical engineers.

Career Resources across MIT

The Career Advising & Professional Development Office has additional resources for career exploration, professional development, and your job or internship search. Explore resources for career counseling, pre-health advising, career fairs, and more.

Handshake can help keep you abreast of job and internship opportunities. Post your resume and sign up for job alerts for the latest opportunities in your field. Save a targeted search and get updates when jobs are added matching your criteria. Companies also share information sessions and networking events on this platform.

Alumni Advisors Hub connects MIT students with alumni mentors for career support. Build your network and seek career advice from grads who regularly volunteer time for career conversations with students.

Infinite Connection gives you access to an expanded network of MIT alumni, listing graduates by major and their current jobs.

ChemE Undergrad Seminars

The Undergrad Seminar series (aka Ten Talks) is designed to allow our sophomores, juniors and seniors to understand how their chemical engineering training might be used in the real world, the range of different career choices and outcomes available to ChemE's, and what those different careers and paths look like. Past seminar speakers have been Institute Professor Robert Langer, C.E.O. of Flagship Pioneering Noubar Afeyan, and Massachusetts State Representative and ChemE alumna '09 Maria Robinson. Keep an eye out for announcements from the Academic Office for these talks in the fall and spring semesters.

General MIT Policies

The Massachusetts Institute of Technology is committed to the principle of equal opportunity in education and employment. The Institute does not discriminate against individuals on the basis of race, color, sex, sexual orientation, gender identity, religion, disability, age, genetic information, veteran status, ancestry, or national or ethnic origin in the administration of its educational policies, admissions policies, employment policies, scholarship and loan programs, and other Institute administered programs and activities, but may favor U.S. citizens or residents in admissions and financial aid.

The Vice President for Human Resources is designated as the Institute's Equal Opportunity Officer and Title IX Coordinator. Inquiries concerning the Institute's policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to Ramona Allen, Vice President for Human Resources, Room NE49-5000, 617-253-6512, or to the Manager of Staff Diversity and Inclusion, Room NE49-5000, 617-452-4516. Inquiries about the laws and about compliance may also be directed to the Assistant Secretary for Civil Rights, US Department of Education.

The Vice President for Human Resources is designated as the Institute's Equal Opportunity Officer and Title IX Coordinator. Inquiries concerning the Institute's policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to Ramona Allen, Vice President for Human Resources, Room NE49-5000, 617-253-6512, or to the Manager of Staff Diversity and Inclusion, Room NE49-5000, 617-452-4516. Inquiries about the laws and about compliance may also be directed to the Assistant Secretary for Civil Rights, US Department of Education.

MIT Policy on Harassment

Harassment of any kind is not acceptable behavior at MIT; it is inconsistent with the commitment to excellence that characterizes MIT's activities. MIT is committed to creating an environment in which every individual can work, study, and live without being harassed. Harassment may therefore lead to sanctions up to and including termination of employment or student status.

Harassment is any conduct, verbal or physical, on or off campus, that has the intent or effect of unreasonably interfering with an individual or group's educational or work performance at MIT or that creates an intimidating, hostile, or offensive educational, work, or living environment. Some kinds of harassment are prohibited by civil laws or by MIT policies on conflict of interest and nondiscrimination. Harassment on the basis of race, color, sex, disability, religion, national origin, sexual orientation, gender identity, veteran's status, or age includes harassment of an individual in terms of a stereotyped group characteristic, or because of that person's identification with a particular group.

Sexual harassment may take many forms. Sexual assault and requests for sexual favors that affect educational or employment decisions constitute sexual harassment. However, sexual harassment may also consist of unwanted physical contact, requests for sexual favors, visual displays of degrading sexual images, sexually suggestive conduct, or offensive remarks of a sexual nature.

The Institute is committed under this policy to stopping harassment and associated retaliatory behavior. All MIT supervisors have a responsibility to act to stop harassment in the areas under their supervision. Any member of the MIT community who feels harassed is encouraged to seek assistance and resolution of the complaint. MIT provides a variety of avenues by which an individual who feels harassed may proceed, so that each person may choose an avenue appropriate to his or her particular situation. Institute procedures are intended to protect the rights of both complainant and respondent, to protect privacy, and to prevent supervisory reprisal. General complaint procedures are described in Section 9.6 Complaint and Grievance Procedures as well as the Guidelines for Raising Complaints about Harassment.

Complaint and Grievance Procedures for Students at MIT

Students who believe they have been treated improperly, for any reason, are encouraged to raise their concerns. Students who have difficulty in their living groups should raise these problems within the living group and with graduate residents and housemasters, as appropriate. Concerns related to the broader Institute community, including but not confined to academic or work situations, should be raised directly with professors, instructors, departmental advisors and immediate supervisors, Campus Police or other Institute officials, as appropriate to the nature of these problems.

In the Department of Chemical Engineering, students may wish to contact one of the following people to discuss issues of harassment, complaints, or other concerns:

- Prof. Kristala L. J. Prather, Department Head, Room 66-350, (617)253-1950, kljp@mit.edu
- Dr. Tom Kinney, Undergraduate Officer, Room 66-368, (617)258-7141, tkinney@mit.edu
- Melanie Charette, Assistant Director of Academic Programs, Room 66-366, (617)253-4577, melaniec@mit.edu

- Barbara Travers, Director of Administration and Finance, Room 66-542B, (617)258-6966, barbtrav@mit.edu

A concern also be raised at any time with any of the following MIT personnel:

- **Nicholas Diehl or Judi Segall**, Ombudsperson, Room 10-359 (617)253-5921, dieln@mit.edu or jsegall@mit.edu
- **Ramona Allen**, Vice President for Human Resources, Room NE49-5000, (617) 253-6512, ramona@mit.edu
- **Sarah Rankin**, Institute Title IX Coordinator, Room W31-223, (617) 324-7526, srankin@mit.edu

  If the complaint is against another student and cannot be resolved otherwise, the Office of the Dean for Student Life may assist (Room 4-110, (617-253-4052), or the case may be referred to the Committee on Discipline. For further information on the Committee on Discipline, please refer to the MIT Bulletin. (Detailed procedures of the Committee on Discipline are stated in Committee on Discipline Rules and Regulations, which is available from the Office of the Dean for Student Life (http://web.mit.edu/committees/cod/).

The Institute's policy is that individuals will not be reprimanded, or discriminated against, for initiating an inquiry or a complaint. The Institute's policy is to recognize and respect the rights of any individual against whom a complaint has been brought.

The above procedures are intended to resolve issues within the Institute, and follow the guidelines explained in the MIT Policies and Procedures Guide http://web.mit.edu/policies/.

The procedures are not ordinarily available to deal with the substance of a complaint that has been formally taken outside the Institute.

Normally, while a complaint is being pursued internally, a complainant is expected to represent himself or herself directly; individuals are free to obtain the support and assistance of a co-worker or fellow student or any other MIT associate in presenting their concerns. "MIT associate" is a person who is currently a member of the MIT community, mainly a student, faculty member, staff member, or other employee, but not a member of the complainant's immediate family (parent, sibling, spouse, or child) so that issues of familial loyalty do not cloud the resolution of the complaint.

Once a complaint is presented or an inquiry has begun, a determined effort should be made at each step, either to resolve the problem, or to refer it to the next step, within one week. Throughout the entire complaint process, the complainant should be assured that the information provided will be kept confidential, insofar as the individual wishes it, or until such time as the individual agrees that a third party, or parties, must be informed to facilitate action. This assurance of confidentiality may be qualified: for example, by the duty placed by law on persons receiving complaints of particular types.

Academic Honesty

MIT assumes that all students come to the Institute for a serious purpose and expect them to be responsible individuals who demand of themselves high standards of honesty and personal conduct.

Cheating, plagiarism, unauthorized collaboration, and other forms of academic dishonesty are considered serious offenses for which disciplinary penalties can be imposed.

Some academic offenses by students may be handled directly between a faculty member and the student, possibly with the assistance of the Department Head. More information on academic honesty can be found on the MIT website at https://integrity.mit.edu.

Tutoring

Tutoring is provided by the department for sophomore and junior 10.x subjects. The tutors are juniors and seniors in the department.

If you would like help, send a request to the tutors at che_tutors@mit.edu. (If you don't receive a reply, keep asking; they're busy, too!). When a tutor responds, set up time and place to meet that works for both of you, or connect via Zoom.

Contact tutors: che_tutors@mit.edu
Interested in becoming a tutor? Contact Adrienne Bruno brunoa@mit.edu

MIT Chemical Engineering Student Organizations

American Institute of Chemical Engineers (AIChE) Student Chapter

The American Institute of Chemical Engineers is a professional organization representing nearly 60,000 chemical engineers. AIChE encourages the activities of student chapters at academic departments, and works to integrate the student members into the professional world.

At MIT, the AIChE student chapter provides a voice for undergraduates in department affairs, encourages the professional development of students, and provides seminars concerning graduate school application, job hunting, and life in industry. The chapter also organizes study breaks and student-faculty get-togethers.

AIChE Objectives
The objectives of this AIChE chapter are (1) to promote the professional development of its members through its programs and by its relations with other student chapters and the parent body, the American Institute of Chemical Engineers, and (2) to contribute to the development of chemical engineering at MIT through activities involving the faculty and student members.

Our student chapter does not necessarily have conditions for membership and, in a sense, functions as a student interest organization. All chemical engineering students in the Department are invited to participate in AIChE activities. These include attending industrial seminars, study breaks, lunches, and opportunities to get to know faculty and staff within the Department.

AIChE Executive Board Members 2025-2026
Co-Presidents: Favianna Colon ('26) & Lucas Ospina ('26)
VP Finance: Eliana Shin ('26)
VP Internal: Sophie Thompson ('26)
VP Chapter Relations: Amanda Cheng ('26)
VP External: Rachel Lee ('26)
Intracollegiate Chair: Hana Sousa ('27)
Corporate Relations Chairs: Fiona Shangguan ('27) & Ty Arnold ('26)
Freshman and Alumni Chairs: Julia Casey ('26) & Hannah Hicks ('26)
DEI Representative: Valeria Mejia ('27)
Webmaster: Vivian Guo ('27)
Facilities Chairs: Kaya Weiser ('26) & Alice Hall ('26)
ESC Liaison: Ava Johnston ('27)
Mentorship Chair: Gabriel Sanchez ('26)
Senior Class Reps: Ruting Hung & Julie Chen ('26)
Junior Class Reps: David Robichaud & Mercedes Randhahn ('27)

Undergraduate Student Advisory Board (USAB)
The Undergraduate Student Advisory Board is a student committee that advises the Department of Chemical Engineering on matters related to the academic and professional growth of the undergraduate student body. USAB's main focus is to enhance the student experience in the department and provide input to continuously improve the undergraduate program. The board consists of two representatives from each undergraduate class as well as two reps from AICHE and they will have regular meetings throughout the year with the Department Chair and the Academic Office.

Class of 2026 Representatives: Alice Hall, Claire Underwood
Class of 2027 Representatives: Nishant Lahiri, Brooke Birdsall
Class of 2028 Representatives: TBD in Fall 2025

National Organization of Black Chemists and Chemical Engineers (NOBCChE)
NOBCChE is a non-profit professional organization dedicated to assisting black and other minority students and professionals in fully realizing their potential in academic, professional, and entrepreneurial pursuits in chemistry, chemical engineering, and allied fields.
https://www.nobcche.org/about-us

Undergraduate Committee Members

Dr. Justin Buck	26-033	720-201-0509-	jbuck@mit.edu
Professor Patrick Doyle	E17-504F	617-253-4534	pdoyle@mit.edu
Dr. Tom Kinney	66-368	617-258-7141	tkinney@mit.edu
Prof. Bradley Olsen (chair)	66-558A	617-715-4548	bdolsen@mit.edu
Prof. Kristala Prather	E17-504G	617-253-1950	kljp@mit.edu
Prof. Gregory Rutledge (sabattical 25-26)	E17-504D	617-253-0171	rutledge@mit.edu
Prof. William Tisdale	66-458	617-253-4975	tisdale@mit.edu
Prof. Bernhardt Trout	E19-502B	617-258-5021	trout@mit.edu

Diversity, Equity and Inclusion Committee

The charge of the Diversity Committee is to coordinate and synergize our ongoing efforts and recommend new ones, harmonize operations, catalyze discussions and generate ideas, and ultimately route those ideas for any further needed discussion and ultimately implementation by the Department.

Executive Committee

Chris Love (co-chair)	Faculty Chair
Christelle Hayles	DEI Specialist
Hadley Sikes	Graduate Officer
Tom Kinney	Undergraduate Officer
Will Tisdale	Graduate Admissions Chair
Kristala Prather	Department Head, *ex-officio*

Declaring a minor

Information from https://registrar.mit.edu/registration-academics/academic-requirements/majors-minors/declaring-minor

Minor programs consist of five to seven subjects, with a typical program including six. You must designate your minor between the end of your sophomore year and Add Date one full term prior to receiving your degree. Minors must be associated with an SB degree program and cannot be awarded independently. You may not minor in the area of your major and you may not earn more than two minors.

Minors are also not allowed in either field of composite degrees, such as the SB in Mathematics with Computer Science or the SB in Computer Science and Molecular Biology. The Committee on Curricula (CoC) has the authority to determine whether a specific combination is permissible.

Key points to remember:

- A minor may include a limited number of subjects that count toward the General Institute Requirements (GIRs).
- Subjects taken for a minor may also count toward your departmental degree requirements with approval from your major department and the CoC.
- The minor advisor may approve transfer credit for your program, but at least half of your minor subjects must be MIT subjects.

- Of the six subjects required for a HASS minor, at most five may count toward your eight-subject HASS Requirement and only one may count toward the distribution component.
- Subjects taken under the junior-senior P/D/F grading option cannot be used for a minor.

Please refer to Registrar's website or speak with your advisor for more details

Double majors

Information retrieved from https://registrar.mit.edu/registration-academics/academic-requirements/majors-minors/double-majors

In order to receive a diploma for a double major, you must complete the General Institute Requirements (GIRs) and the requirements of both majors. You must also complete two CI-H subjects and two CI-M subjects to fulfill the communication component of each major.

To apply for a double major, you must be an undergraduate with a cumulative GPA of 4.0 or higher. Students with a lower GPA will be considered on a case-by-case basis and must provide a letter with their application explaining why an exception is justified. You must also have completed at least three terms, including at least one in a department with a declared major. Transfer students must complete at least two terms at MIT, including at least one in a department with a declared major.

If you are unable to complete all the requirements for both programs, you will need to choose between graduating with a single major and continuing until you complete the second. If you decide to graduate, you may not return to MIT to complete the second major. Those who continue beyond eight terms should check with Student Financial Services (https://sfs.mit.edu/) regarding the impact on their financial aid.

Some key points to remember:

- You may not pursue a second major in the same area as your primary major or in either field of composite degrees.
- If a subject is approved as CI-M in both majors, you may use it to fulfill the Communication Intensive component of both programs simultaneously, with the approval of the Subcommittee on the Communication Requirement (SOCR).

Undergraduate Road Maps

The ChemE Undergraduate Officer maintains Roadmap charts that show how a student may feasibly fulfill X, XB, and X-ENG degree requirements in four years, beginning with no advanced standing credits. Associated with these are Prerequisite Chain diagrams.

Based on the Roadmap, the following progress guideline is offered. Comparing the core subjects, GIRs, and units-beyond-GIRs that a student has completed (from a WebSIS degree audit) with this chart may reveal whether the student should be making extra efforts to catch up.

term completed	10.x subjects taken in the term	GIRs complete	other units complete
Sophomore Fall	10.10	10	24
Sophomore Spring	10.213,10.301	12	48
Junior Fall	10.302,10.28*,10.467*	13	78
Junior Spring	10.32,10.37, 10.26/7/9*	15	120
Senior Fall	10.490**,10.492A**,10.28*,10.467*	16	162
Senior Spring	10.490**,10.494A**,10.26/7/9*	17	195

* Lab subjects 10.26, 10.27, 10.28, 10.29, 10.467 may be taken by juniors or seniors. Beginning in Fall 2026, only 10.28 or 10.467 will be offered in the Fall semester, not both.

** Students select from among the various 10.49x offerings. X-ENG students have other options for completing the Capstone requirement.

See page 21 for visual road maps and pre-requisite tables.

Department Curriculum Requirements in Outline

The Course X Curriculum

http://catalog.mit.edu/degree-charts/chemical-engineering-course-10/

- 5.12, 5.310, 5.601
- One of 5.03, 5.07, 5.13, 5.61, or 7.05
- 18.03x
- 10.10, 10.213, 10.301, 10.302, 10.32, 10.37, 10.490
- one of ICE-topics 10.492A, 10.493, 10.496, 10.494A
- 1 ChE restricted elective of at least 6 units (can be another ICE-Topic module, a second offering of 10.490 or other other approved Chemical Engineering elective as posted on Canvas
- 1 ChE lab (10.26, 10.27, 10.28, 10.29, or 10.467)
- 1 additional engineering lab, which may be from any department (see approved list on Canvas)
- 1 ChE restricted elective of at least 9 units
- Unrestricted elective credit: 48 units

Department requirements automatically satisfy MIT GIR requirements LAB and REST; the units of subjects NOT included in GIRs will total at least 186. UROP credit contributes to the non-GIR units.

The Course XB curriculum

http://catalog.mit.edu/degree-charts/chemical-biological-engineering-course-10-b/

- 5.07 or 7.05, 5.12, 5.601
- 7.002, 10.7003, 7.03, 7.06
- 18.03x
- 10.10, 10.213, 10.301, 10.302, 10.37, 10.490
- one of ICE-topics 10.492A, 10.493, 10.496, 10.494A
- 1 ChE restricted elective of at least 6 units (can be another ICE-Topic module, a second offering of 10.490 or other other approved Chemical Engineering elective as posted on Canvas
- 1 ChE lab (10.27, 10.28, or 10.29)
- Unrestricted elective credit: 48 units

Department requirements automatically satisfy MIT GIR requirements LAB and REST; the units of subjects NOT included in GIRs will total 192. UROP credit contributes to the non-GIR units.

The Course X-ENG Curriculum

http://catalog.mit.edu/degree-charts/engineering-chemical-engineering-course-10-eng/

- 5.601
- 18.03x
- 10.10, 10.213, 10.301, 10.302, 10.37
- Foundational Concepts: 3 subjects to include LAB and at least 1 CI-M (still you need 2 CI-M's somehow)
- Concentration: 4 engineering subjects
- Capstone: some ICE/thesis/project combination to total at least 12 units

- Unrestricted elective credit: 48 units

Department requirements automatically satisfy the MIT GIR REST requirement but the student must choose a subject that satisfies LAB; the units of subjects NOT included in GIRs will total at least 180. UROP credit contributes to the non-GIR units.

Complications in the Curriculum

The selection of subjects in X-ENG is more flexible than in X and XB; however, that selection is constrained by (1) ensuring that MIT LAB and CI-M requirements are met (2) ensuring coherence and engineering content in the Concentration (3) ensuring that the Capstone plan meets the intent of a design/integrative experience (4) ensuring that the engineering and science content meets the ABET accreditation requirements. In consultation with a 10ENG Concentration Advisor, the student must complete an Enrollment form and a Planning form to guide the selection of Concentration and Capstone subjects. Concentration Advisors are listed at https://cheme.mit.edu/10-eng- concentration-advisors/.

Requirements and Policies of the Institute

The GIR Requirement

http://catalog.mit.edu/mit/undergraduate-education/general-institute-requirements/
MIT designates 5.11x or 3.091, 7.01x, 8.01x, 8.02x, 18.01x, 18.02x as General Institute Requirements for all students. In addition, each student must take eight HASS subjects, two Restricted Electives in Science and Technology (REST), and one Institute Laboratory (LAB). Normal department requirements in Course X and XB automatically satisfy the REST and LAB GIR requirements. By contrast, X-ENG students must ensure their subjects include one LAB subject.

The HASS Requirement

Eight GIR subjects are (with few exceptions) taken in the School of Humanities, Arts, and Social Sciences (SHASS). These HASS subjects must satisfy:

- a Distribution for breadth: 1 subject from each of 3 distribution categories H(umanities), A(rts), and S(ocial sciences).
- a Concentration for depth: 3-4 subjects in a single topic. The program is chosen on the HASS Concentration form under the guidance of a HASS concentration advisor. One of these subjects may also fulfill a Distribution requirement. The Concentration Proposal form is online. See https://registrar.mit.edu/registration-academics/academic-requirements/hass-requirement/hass-concentrations
- further HASS electives to total 8 subjects.

For HASS information, see https://shass.mit.edu/for-students/undergraduate-study/

The Communication Requirement

- Students are required to complete four subjects designated CI (communication-intensive). The schedule is important: the ratio of "CI subjects completed" to "years at MIT completed" should not fall below one.
- Two of the subjects must be designated CI-H; these are normally included within the eight GIR HASS subjects. The other two subjects must be designated CI-M. In our department, labs (10.26, 10.27, 10.28, 10.29, 10.467, 10.7003, plus 5.310) have CI-M designation, so that a student automatically satisfies CI-M requirements by satisfying the Department requirements.
- Only one CI-H requirement may be satisfied in a term, even if multiple CI-H subjects are taken. By contrast, both CI-H and CI-M, or multiple CI-M, may be satisfied in a single term. This affects primarily XB students, who can take both a CI-H and 10.7003 during the sophomore year, without restriction.
- (for some students, the first CI-H subject must be selected from a writing-intensive subset designated CI-HW. This is a first-year matter that seldom affects department advising.)

For lists of CI-designated subjects, see http://web.mit.edu/commreq/cih.html

Grades

A good overview is at https://facultygovernance.mit.edu/faculty-rules-page under paragraph 2.60.

Committee on Academic Performance – CAP

At the end of each term, the Registrar flags students with low term GPA (≤ 3.0) or low registered load (≤ 35 units) for possible CAP attention. The consequences of the CAP process for a flagged student may be NO ACTION, WARNING (with a limit on units in the following term), or REQUIRED WITHDRAWAL. Flagged students should contact their academic advisors as soon as possible.

Degree tracking and other information sources

Departmental Degree Tracking: Seniors and juniors have their completed required ChemE courses and future plans versus degree criteria tracked via a Google web interface. Students may consider having a copy ready to facilitate registration meetings.

WebSIS (Official Grades and Degree Progress):
https://student.mit.edu/sfprwhom.html

Grade Report: Provides detailed academic performance.
Undergraduate Degree Audit: Tracks progress toward degree requirements (e.g., GIRs, CI-H/CI-M, total units beyond GIRs, non-subject requirements like HASS concentration, swim test).

CourseRoad and Hydrant: For planning course selection toward a degree and weekly schedules for a semester. Note that CourseRoad may not be completely accurate regarding 10/10B restricted electives or 10ENG concentration requirements.

https://courseroad.mit.edu/road/$defaultroad$
https://hydrant.mit.edu/

Canvas Sites (Class of 2026, 2027, 2028): These have important communications from the Undergraduate Officer. Students, ensure you are on the correct site for your class. Often, important updates are published here first well before they are reflected in the MIT Catalog. Advisors should disable notifications (Go to the Canvas class homepage, lower right, click on "View Course Notifications" and disable them).
https://canvas.mit.edu/courses/23033
https://canvas.mit.edu/courses/29118
https://canvas.mit.edu/courses/34778

10 / 10B / 10ENG Course Requirements Links to MIT Catalog:
http://catalog.mit.edu/degree-charts/chemical-engineering-course-10/
http://catalog.mit.edu/degree-charts/chemical-biological-engineering-course-10-b/
http://catalog.mit.edu/degree-charts/engineering-chemical-engineering-course-10-eng/

Note: 10 / 10B restricted elective course lists will be updated separately on Canvas. Examples of 10-ENG concentration options are also available online by navigating through cheme.mit.edu

Transfer Credits: Transfer students entering MIT in their sophomore year must ensure their transfer credits are correctly reflected on their degree audit. Even if an instructor accepted you to take a course, the prerequisite credits need to be properly processed in the Registrar's system for graduation by a completely separate procedure. Students may also need to take an advanced placement test or other evaluations. This process can be confusing and time-consuming. Make sure to read the Transfer Student Guidance on Canvas or visit the Student Office or Undergraduate Officer for assistance.

Concerned About Negative Grade Trend?: This is a good time to improve a declining trend. Consult with your academic advisor and consider strategies like taking fewer courses, which can free up time to focus on mastering the more important material.

ChemE Academic Office, Department of Chemical Engineering, 66-366

https://cheme.mit.edu/resources/student-office/
Melanie Charette, Assistant Direct of Academic Programs, melaniec@mit.edu 671-253-4577
Adrienne Bruno, Undergraduate Academic Program Specialist, brunoa@mit.edu 617-253-4579
Matthew Sweeney, Graduate Academic Program Specialist, vsweeney@mit.edu, 617-452-2162

Undergraduate Officer, Department of Chemical Engineering, 66-368

Dr. Tom Kinney tkinney@mit.edu, 617-258-7141

Sophomore Preparation Checklist

All Tracks:

Complete 10.10, 5.601, and 18.03 if not already taken.
Complete any remaining General Institute Requirements (GIRs).
Note: A grade of C or higher in 10.10 is required to proceed in the program.

Rough Guideline for Academic Progress by sophomore spring:

12 GIRs completed
48 units beyond GIRs completed

Other Common Technical Subjects by Track:

Straight 10:

5.12, 5.310, or an advanced chemistry elective.

10B:

5.12, 7.05, and the 7.002 lab.

Note: 10.7003 can conflict with 10.213 & 10.301 in the spring semester.

• 10ENG:

The primary goal this year is to determine and validate your commitment to develop a meaningful engineering concentration course ladder. Consider exploring the concentration of interest and validate your commitment to developing advanced engineering proficiency in this area.

By the end of this academic year, students in 10ENG need to create a first draft of their 10-ENG plan and arrange to meet with their Concentration advisor to discuss it, document their plans and start getting preliminary commitments from the 3 approvers involved (academic advisor, concentration advisor, 10ENG Coordinator).

Students registered in 10ENG as incoming sophomores may wish to consider that there are pros and cons of 10ENG versus other approaches. One currently popular example is comparing "10ENG – Energy" versus "Straight 10 + Energy Studies Minor". A student interested in Energy as a ChemE career path may consider remaining in Straight 10 as a sophomore and taking time to learn about ChemE generally, how it connects with Energy, and weigh the pros and cons and make a more fully informed decision later. Switching is nearly as easy as adding a course on websis.

CI Subjects:

Students usually fulfill their second Communication Intensive (CI) requirement with a HASS course (CI-H) or a CI-M subject.

Peer Tutoring:

See page 8 for details

Sophomores who could benefit the most sometimes delay seeking help and fall further behind. Be proactive and reach out when you think you might be struggling, rather than waiting for an unfavorable midterm result.

Junior Preparation Checklist

All Tracks:

- Normally you would take10.302 in the fall
- Possibly take 10.UAR which can be a Restricted Elective; or Engineering Credits for 10ENG
- A rough Guideline for Academic Progress by your Junior Spring semester:
  - 15 GIRs completed
- 120 units beyond GIRs completed

Other Common Technical Subjects by Track:

Straight 10:

Advanced chemistry elective; another possibility includes a Chemical Engineering (ChE) Restricted Elective or laboratory subjects 10.28 and 10.467, if prerequisites have been met. Note for the class of 2026: only one of 10.28 or 10.467 will be offered in your senior year, you will be advised of which one as soon as possible.

10B:

7.03 and 7.05 (or 5.07), as well as laboratories 7.002 and 10.7003. Another possibility is laboratory subject 10.28, if prerequisites have been met.

10ENG:

Focus on Foundational and Concentration Track subjects that both support your concentration.

Students will need to have a complete 10-ENG plan, approved by all three required approvers, by the end of this academic year.

CI Subjects:

Students are required to have completed three Communication Intensive (CI) subjects by the end of junior year. These are generally two CI-H and one CI-M.

HASS Concentration Proposal:

Students who have not yet submitted a HASS Concentration Proposal should do so this term using the WebSIS system.

Senior Preparation Checklist

All Seniors:

• Graduating this year? Pay close attention to meeting all degree requirements, including:
  General Institute Requirements (GIRs)
  Total units beyond GIRs
  Communication Intensive (CI) subjects
  HASS Concentration, Physical Education, and Swim Test requirements
  Departmental requirements (verified by the Undergraduate Officer, not the registrar)

Review your registrar's Degree Audit on WebSIS to identify any deficiencies, as well as the degree tracker from the Undergraduate Officer via Google interface.

Is this fall your final semester? Students planning to graduate in February should immediately review the deadlines checklist at http://web.mit.edu/registrar/graduation/index.html Failing to meet various administrative deadlines will incur fines. This checklist will be updated for June graduation; students should watch for it.

Complete list of graduation considerations: https://registrar.mit.edu/graduation and https://registrar.mit.edu/graduation/spring-degree-dates-deadlines

Common Technical Subjects:

• 10.28 or 10.467 to fulfill the Course 10 CI-M requirement.
• However, students can also take 10.26/7/9 in the senior spring semester.
• 10.490 and the ICE topic module (10.492A/B, 10.493, 10.494A/B, caveat that sometimes only A or B is offered of the half term subjects).
• Possibly 10.UAR which can be a Restricted Elective; or Engineering Credits for 10ENG

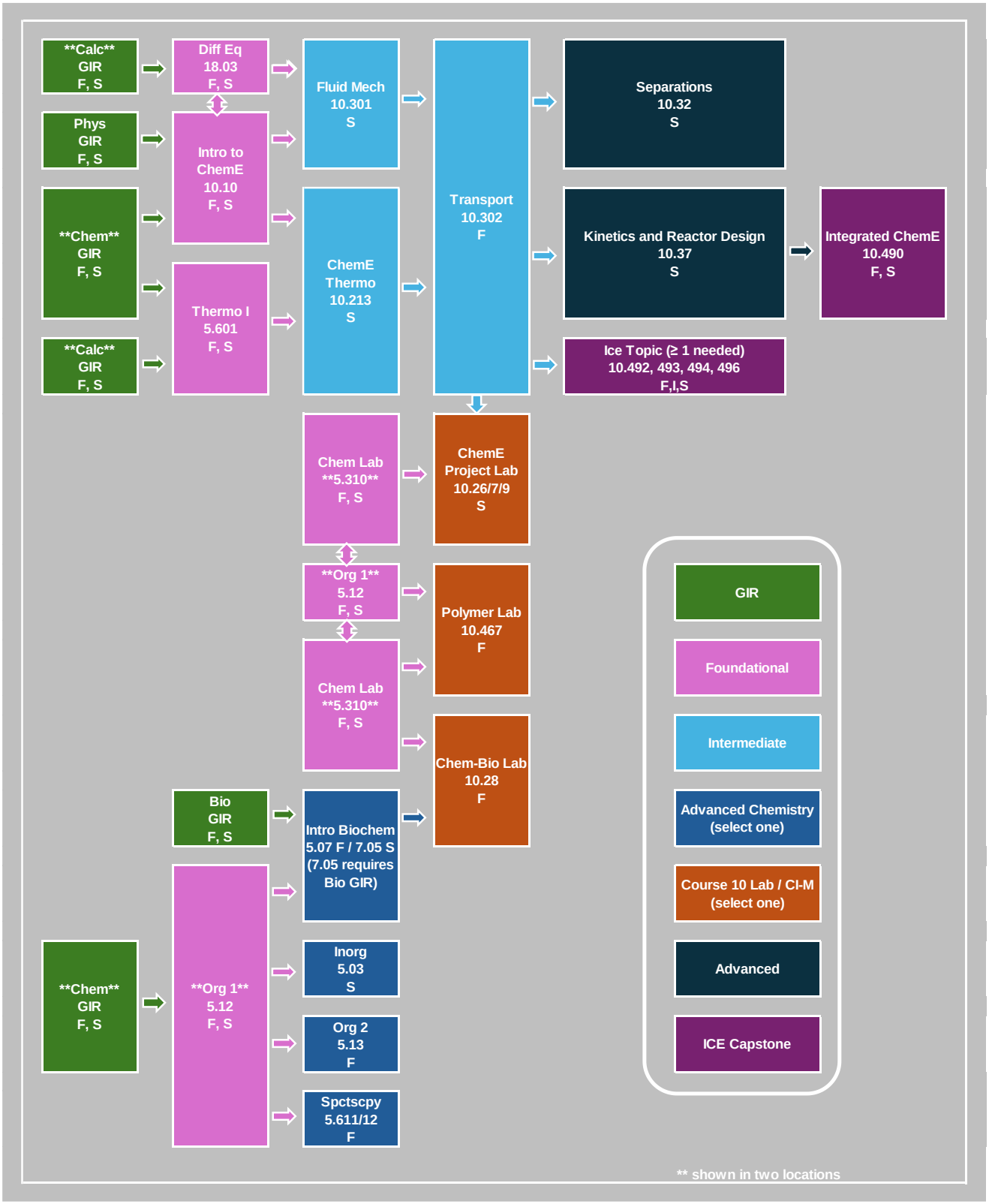
10B Students:

• Consider 7.06, if applicable to your plan. 10.490 in the spring is centered on bioprocessing which is more directly aligned with 10B in terms of subject matter.

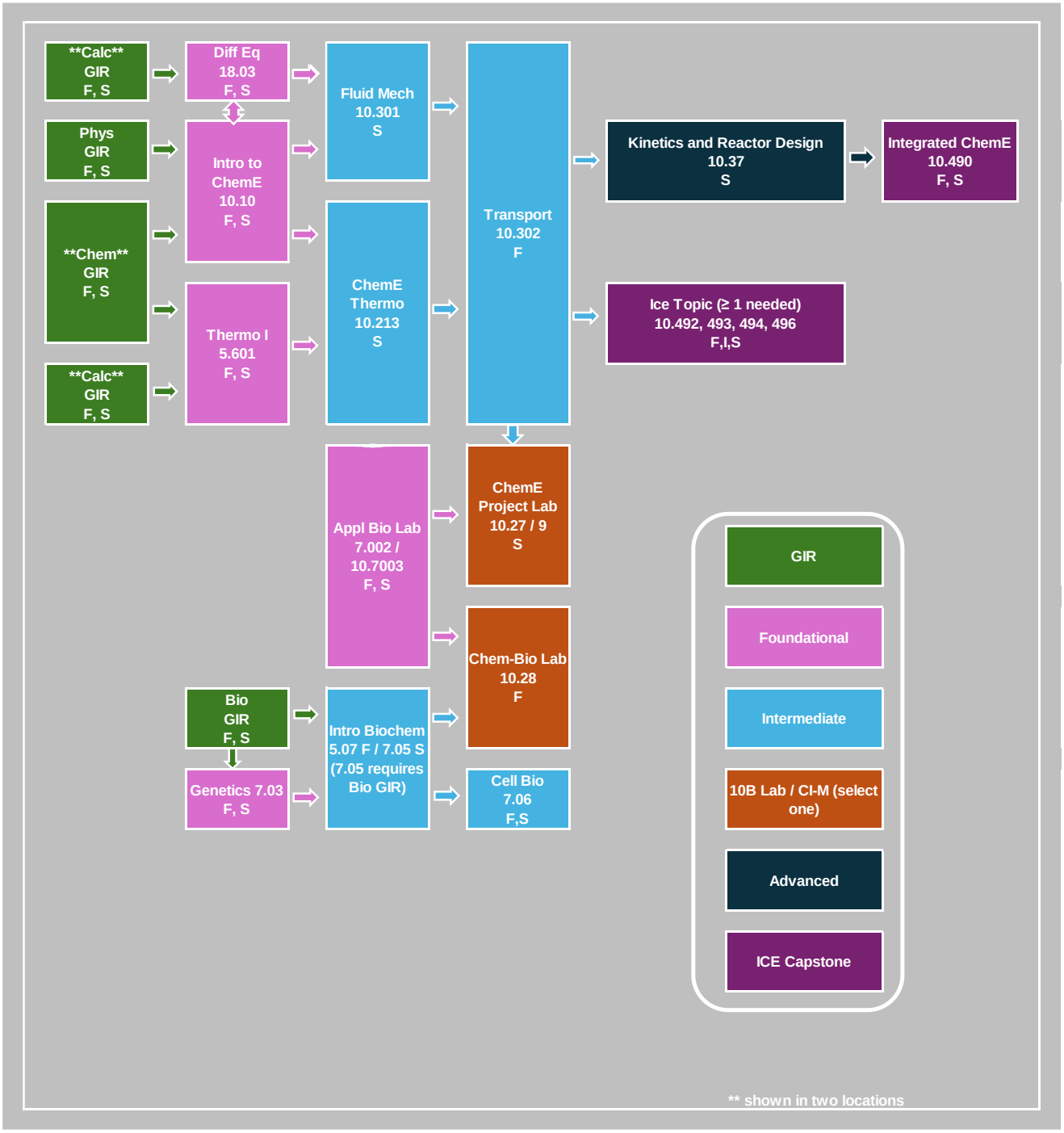
10ENG Students:

• Verify that your 10-ENG plan is fully approved with all three required approvals and accurately reflects what you are taking and planning to take this academic year
• Ensure your plan complies with all 10ENG requirements (and has all 3 approvals)
• If amendments to your plan are needed later this year, obtain approval from both your concentration advisor and the undergraduate officer before committing to new courses.
• You will need to complete a 10ENG Certification Form by spring registration deadlines, and meet with all 3 approvers in person and getting their signatures in ink.

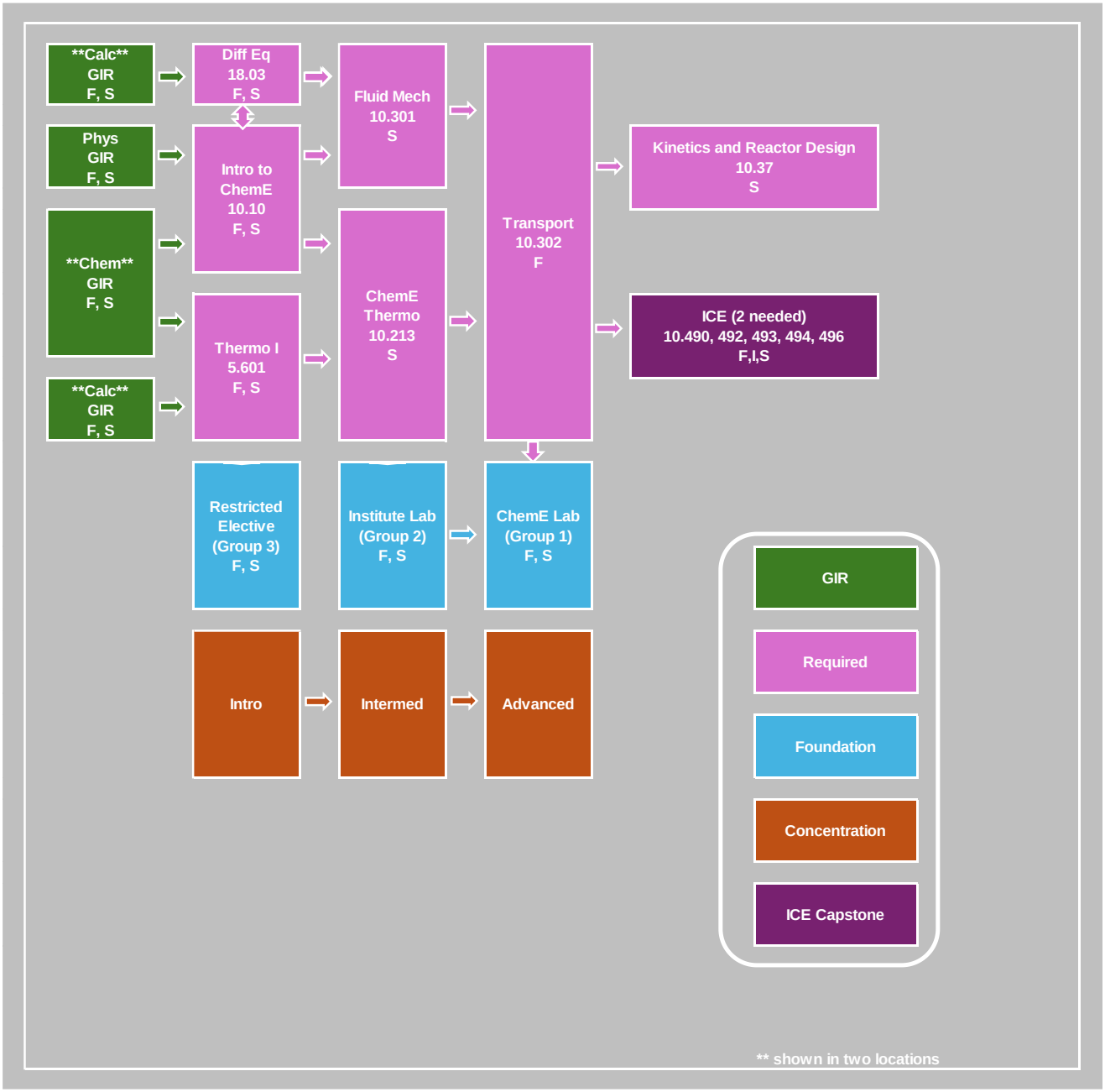
Course 10 Pre-Requisite Map



10B Pre-Requisite Map



10ENG Pre-Requisite Map



Sources of Help for Students in Difficulty

MIT campus emergencies
(24 hours) dial **100** on campus, or **617 253 1212,** Police, ambulance, fire, first aid, dean on call

MIT Health – E23
http://health.mit.edu
Urgent care, medical emergency (24 hours) **617 253 4481**
Mental health (M-F 2-4:00 p.m.) **E23-3rd Floor, 617 253 2916 (**night/weekend **617 253 4481)**

MIT Police: W-89
http://police.mit.edu/
General business **617 253 2996** (emergency: **617 253 1212**)

Student Support Services (often called S^3)
(M-F, 9 am - 5 pm) 5-104, **617 253 4861**
http://studentlife.mit.edu/s3
Counsels students in difficulty, verifies excused absences for medical and other reasons, and coordinates a variety of student support resources. Contact them if you are concerned about a student's well-being or would like to inquire for yourself.

Resources for Student Support
http://studentlife.mit.edu/wellness-and-support
A variety of resources beyond S^3, plus Q & A for students feeling under pressure. Maintained by the MIT Division of Student Life.
Violence Prevention & Response **617 253 2300** http://studentlife.mit.edu/vpr

MIT Residence Housemasters
http://studentlife.mit.edu/housing/undergraduate-housing
If you are concerned about a student's well-being or would like to inquire for yourself., it may help to speak to the Housemaster of the dormitory.
You may be able to find the Resident Advisors of fraternities, sororities, and independent living groups through https://studentlife.mit.edu/first-year

ChE Tutoring in Core Subjects
By upper-level students during academic terms. Contact che_tutors@mit.edu to request a tutor.

OME Talented Scholars Resource Room
P-Set nights (Mon - Thu, 6 - 10 pm) 16-159
https://ome.mit.edu/programs/talented-scholars-resource-room-tsr2

The Undergraduate Advising Center

The Undergraduate Advising Center (UAC) strives to help every undergraduate student at MIT reach their full potential with individualized, holistic advising from matriculation to graduation. Housed within the UAC are a number of programs and services including: the Office of the First-Year, First-Generation/Low-Income (FLI) Program, Associate/Peer Advising Program, upper-level student programming, transfer student initiatives, the Committee on Academic Performance (CAP), streamlining and coordination of tutoring, and student success planning.

At the UAC, we recognize that every student is unique and has different goals, interests, and challenges. Taking into account your diverse academic, personal, and career aspirations, we aim to create a safe and inclusive space where you can openly express concerns, ask questions, and explore opportunities. Whether you need assistance selecting courses, exploring experiential learning opportunities, or finding co/extra-curricular activities, we can connect you with the appropriate resources you need to accomplish your goals. Please contact us at advising@mit.edu with any questions.

Required Senior Survey

The senior survey will be sent out by the end of April Adrienne Bruno in the Academic Office. *The survey is mandatory*, so please remember to take a couple of minutes to fill this out for the department at the end of your senior year. This survey is a chance for our department to receive critical feedback from our students regarding their post-graduate placement, academic program improvements, and to measure their degree preparedness.